DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150

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Contract #: 04-0120F4

Cty: <u>SF/ALA</u> Rte: <u>80</u> PM: <u>13.2/13.9</u>

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter Report No: WIR-017935

Address: 333 Burma Road Date Inspected: 07-Oct-2010

City: Oakland, CA 94607

Project Name:SAS SuperstructureOSM Arrival Time:1500Prime Contractor:American Bridge/Fluor Enterprises, a JVOSM Departure Time:300

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Location: ShangHai, China

CWI Name: Chen Xi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 Component: OBG

Summary of Items Observed:

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

Bay 1

This QA Inspector observed the following work in progress for Bay 1.

ZPMC was using the Flux Cored Arc Welding (FCAW) process.

ZPMC QC is identified as Shen Jian Guo.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Traveler Rail PCMK: B 9TR2-002-017

Welder: 216872

WPS-B-T-2231-TC-U5-F

Heat straightening of PCMK, 20TR2-046, 031 under approved Heat Straightening procedure, HSR(B)-362. The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Ai Wei. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 8mm.

Bay 2

(Continued Page 2 of 5)

This QA Inspector observed the following work in progress for Bay 2.

ZPMC was using the Flux Cored Arc Welding (FCAW) process.

ZPMC QC is identified as Ai Wei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Floor beam PCMK: FB3328-001-053

Welder: 045209

WPS-B-T-2232-TC-U4b-F

PCMK: FB3328-001-016

Welder: 047866

WPS-B-T-2232-TC-U4b-F

PCMK: FB3328-001-036

Welder: 202122

WPS-B-T-2232-TC-U4b-F

Components: Bulk Head PCMK: SA3409-001-016

Welder: 048096

WPS-B-T-2232-TC-U4b-F

Components: Barrier Rail PCMK: E2-SB1-009-027,028

Welder: 045203 WPS-B-T-2132-3

Components: Vertical Plate PCMK: VP3014-001-028

Welder: 045240 Report: B-WR15422

WPS-345-FCAW-2G (2F)-FCM-Repair

Heat straightening of PCMK, VP3012-002,004,005~019, LD3050 and E5-SB1-041 under approved Heat Straightening procedure, HSR (B)-421, HSR1(B)-94512, 9505. The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Ai Wei. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 45mm, 6mm, and 16mm.

Bay 3

This QA Inspector observed the following work in progress for Bay 3.

ZPMC was using the Flux Cored Arc Welding (FCAW) process.

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ZPMC QC is identified as Ai Wei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor beam

PCMK: FB3286

Welder: 206623, 055564, 044830

Report: B-CWR1822 WPS-B-T-2232-TC-U4b-F

Heat straightening of PCMK, FB3260-001 under approved Heat Straightening procedure, HSR 1 (B)-9523. The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Zhu Jun. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 13mm.

Bay 6

This QA Inspector observed the following work in progress for Bay 6.

ZPMC was using the Flux Cored Arc Welding (FCAW) process.

ZPMC QC is identified as Huang Min.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor beam PCMK: FB3002J-002-027

Welder: 053609

WPS-B-T-2232-TC-U5-F

PCMK: FB3002K-003-027

Welder: 217185

WPS-B-T-2232-TC-U5-F

Components: West Jacking Frame PCMK: WJF-0-1201-709, 710, 711

Welder: 215083

WPS-B-T-3312-TC-P4 and WPS-B-T-3112-1

PCMK: WJF-0-1901-706, 707, 708

Welder: 049769

WPS-B-T-3312-TC-P4 and WPS-B-T-3112-1

Bay 7

This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Flux Cored Arc Welding (FCAW) process.

ZPMC QC is identified as Wang Lin.

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Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor beam PCMK: FB3244-001-005

Welder: 053742

WPS-B-T-2233-TC-U4b-F

PCMK: FB3246-001-017

Welder: 204342

WPS-B-T-2233-TC-U4b-F

Components: Cross beam PCMK: CB3003B-019-002

Welder: 215689

WPS-B-T-2231-B-U2-F

Components: Deck Plate PCMK: DP3165-001-157

Welder: 051246

WPS-B-T-2231-B-U2-F

Components: Anchor Plate PCMK: AP3025-001-267

Welder: 048625

WPS-B-T-2232-TC-U4b-F

Bay 8

This QA Inspector observed the following work in progress for Bay 8. ZPMC was using the Shield Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wang Lin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Bike Path PCMK: BK0044A1-055-043

Welder: 040673 Report: B-WR15479

WPS-345-SMAW-2G (2F)-Repair

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Shin,DJ	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer